Research paper

Beliefs about teaching held by student teachers and school-based teacher educators

Krista Uibu [a], Age Salo [a, *], Aino Ugaste [b], Helena Rasku-Puttonen [c]

[a] Institute of Education, University of Tartu, Tartu, Estonia
[b] School of Educational Sciences, Tallinn University, Tallinn, Estonia
[c] Department of Teacher Education, University of Jyväskylä, Jyväskylä, Finland

HIGHLIGHTS

- Student teachers value more than teachers the goals which focus on the mechanical acquisition of knowledge.
- Student teachers prefer teaching practices that support intrapersonal processes of cognitive development.
- Teachers with mentoring experience pay more attention to the pupils' social development.

ARTICLE INFO

ABSTRACT

Teachers' beliefs about teaching goals and practices are influenced by several factors, including teaching and mentoring experiences. To identify which teaching goals and practices are preferred for the social and cognitive development of pupils, 112 student teachers and 73 school-based teacher educators were questioned. In contrast to teacher educators, student teachers consider the mechanical acquisition of knowledge and practices that support intrapersonal processes directed toward cognitive development to be a more effective goal, while teachers with mentoring experience prefer teaching practices that support pupils' social development. Knowledge about teaching-related beliefs is essential for promoting effective teacher training.

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1. Introduction

In many countries, including Estonia, school-based teacher educators constantly work with student teachers during their pre-service school practice, thus playing a key role in teacher training (European Commission/EACEA/Eurydice, 2015). The purpose of school-based teacher educators is to model the teacher role through their own teaching and provide an example to student teachers for implementing teaching practices that support the cognitive and social development of pupils (Jaspers, Meijer, Prins, & Wubbels, 2014; Lunenberg, 2010). Despite the complexity of this phenomenon, research has been conducted on which repertoire of teaching goals and practices are related to teachers' beliefs about teaching (Devine, Fahie, & McGillicuddy, 2013; Khader, 2012; Mansour, 2009; Pajares, 1992; de Vries, van de Grift, & Jansen, 2014). The repertoire is also situated within the larger social and cultural context (John-Steiner & Mahn, 1996).

In accordance with theoretical perspective, the sociocultural context impacts individuals' ways of thinking and acting and is thereby essential to both learning and teaching (van Huizen, van Oers, & Wubbels, 2005). Beliefs about teaching are also related to their sociocultural context at different levels, ranging from the classroom to the cultural-institutional environment (Fives & Buehl, 2012). When setting teaching goals and choosing teaching practices, teachers may rely on beliefs developed in particular sociocultural contexts (Mansour, 2009). However, although changes in the contexts may happen quickly, teachers' beliefs about teaching tend to change more slowly due to their many years of teaching experience (Pajares, 1992). This tendency may obstruct teachers' readiness to establish contemporary teaching goals and use novel teaching practices that facilitate the development of intrapersonal and interpersonal processes (Espasa & Meneses, 2010; Khader, 2012; Tatto & Coupland, 2003). Moreover, school-based teacher

* Corresponding author. University of Tartu, Salme 1a, Tartu 50103, Estonia.
E-mail address: age.salo@ut.ee (A. Salo).

educators' established beliefs may have an undesirable effect on their instruction of student teachers (Lunenberg, Korthagen, & Swennen, 2007) and in contemporary teacher education more generally (Hobson, Ashby, Malderez, & Tomlison, 2009).

Studies of the beliefs and practices of student teachers and school-based teacher educators have yielded inconsistent results. Teachers, for example, appear to focus more on cognitive development goals, setting aside pupils' social development (OECD, 2014; Uibu & Kikas, 2014). Research has also been conducted on which student teachers attach importance to teaching practices directed toward mechanical acquisition without considering the importance of practices that promote social skills (Sandholtz, 2011; Thomson, Turner, & Nietfeld, 2012). Compared to student teachers, teacher educators focus more on the social development of pupils (He & Levin, 2008; Salo, Uibu, Ugaste, & Rasku-Puttonen, 2015). As beliefs have a reciprocal relationship with context and experiences (Fives & Buehl, 2012), the formation of student teachers' beliefs is therefore related to real school practice (Ng, Nicholas, & Williams, 2010). For this reason, it is vital to more thoroughly analyze the beliefs of student teachers and teacher educators about teaching goals and practices (Rozelle & Wilson, 2012), especially since such beliefs may have a significant effect on the success of students' preservice school practices (He & Levin, 2008) as well as the entire teacher training system (Tillema, Smith, & Leshem, 2011).

Thus, the purpose of this study was to investigate the beliefs of student teachers and school-based teacher educators about teaching goals and teaching practices, as well as the beliefs of school-based teacher educators who have had different mentoring experiences. The study was conducted in Estonia, a country where diametrically opposed paradigms, beliefs, and values are evident in the educational system (Uibu & Kikas, 2014) and where the majority of current teachers and school-based teacher educators completed their teacher training during the Soviet period (Ruus et al., 2008; Toomela & Kikas, 2012).

1.1. Sociocultural approach in teaching

According to the sociocultural framework, teaching goals and associated practices are applied primarily to the learning and teaching process. Yet, while goals determine the direction of teaching, teachers are not always aware of which teaching practices they can use to achieve certain goals. Previous research has shown that teachers' knowledge about student development is not sufficiently thorough, nor do some teachers appear to be competent enough to explain their teaching goals (Vaughn, 2014; van Velzen & Volman, 2009). When deciding on which teaching practices to use, teachers should consider both social and cognitive development goals, the balance of which might be the best approach for promoting effective instruction (Hofman, Hofman, & Guldemond, 1999).

On the basis of a revised taxonomy of educational objectives, a child's development is considered hierarchical: the prerequisite for acquiring higher-level skills is the prior acquisition of lower-level skills (Krathwhol, 2002). Without having the necessary skills, a child cannot comprehend the task at hand nor rely on prior knowledge (Vygotsky, 1978). A teacher's task is to use dialogue to support pupils' active construction and acquisition of new knowledge (Eun, 2010). Social communication and the cognitive development of pupils are interrelated, as the success of teaching is determined by the nature of the connection between teachers and pupils (Stone, 1993). Therefore, the sociocultural approach to teaching emphasizes communicative processes—teaching depends on teacher—pupil interaction. Teachers should also pay greater attention to social development in order to make sure that pupils are provided with the self-management skills needed to effectively

adapt to different environments (Zwaans, van der Veen, Wolman, & ten Dam, 2008).

To achieve teaching goals and cultivate various competencies in students, teachers implement different teaching practices. Teaching practices can be defined as a set of instructional methods and strategies employed in teacher—student interaction in the classroom (Khader, 2012). In choosing teaching practices, it is essential to consider a child's zone of proximal development—that is, gauging the distance between a child's levels of independent and supported performance makes it possible to plan a more effective teaching strategy (Vygotsky, 1978). When devising teaching practices, the teacher's aim should be to create a bridge between what the child is capable of doing independently and what he or she requires assistance doing.

In order to enhance the cognitive and social development of pupils, the teaching practices of teachers should support intrapersonal and interpersonal processes (Espasa & Meneses, 2010). Based on Vygotsky's conception of learning, interpersonal processes involve the use and exchange of different mental tools (e.g., language, texts, formulas) in communication with other people, while intrapersonal processes entail both the acquisition of mental tools and the ability to employ them independently (Bodrova & Leong, 2007). Intrapersonal processes are supported by teaching practices that focus on the development of pupils' self-evaluation and effortful cognition skills, both of which can be used for understanding and drawing connections between current learning and prior knowledge (McCaslin & Hickey, 2001). However, when pupils express ideas or compare their learning to peers, the teaching practices that shape intrapersonal processes also influence the pupils' social development (Oldfather & Dahl, 1994). Teaching practices aimed at the formation of interpersonal processes, on the other hand, facilitate the social development of learners as well as the development of cooperative skills (Schmuck & Schmuck, 1975). Teachers can enhance the interpersonal processes of pupils by, for instance, providing feedback, which can accelerate their cognitive development (Espasa & Meneses, 2010). According to sociocultural theory, the task of teachers is to keep in mind that teaching practices are not used in isolation but are interconnected: goals pertaining to both the cognitive and social development of learners should be considered together (John-Steiner & Mahn, 1996).

1.2. The beliefs of student teachers and teacher educators

A teacher's beliefs are a form of personal knowledge that can be viewed as implicit perspectives on learning, pupils' development, and the subject matter being taught (Fives & Buehl, 2012; Kagan, 1992). Deemer (2004) pointed out that prevailing beliefs related to learning at school influence the way teachers define the purposes of learning in their classrooms. A change in the educational context requires a concomitant change in teaching practices, and both pre- and in-service teachers must be prepared to respond to such a change (Valcke, Sang, Rots, & Hermans, 2010). However, as a system, teacher beliefs are situated within larger contexts and are relatively stable across settings and times (Fives & Buehl, 2012; Valcke et al., 2010). Due to their long-lasting and resilient nature, beliefs can prevent changes in the teaching process (Pajares, 1992). Moreover, the beliefs of experienced teachers are more resistant to change than those of younger teachers, as experienced teachers are typically more confident about their instructional skills (Rubie-Davies, Flint, & McDonald, 2012).

Promoting changes in the beliefs of student teachers is considered essential, since their beliefs are often based on personal learning experiences and can be too optimistic; such beliefs do not promote effective teaching (Thomson et al., 2012). The need to overcome the disparity between the ideal teaching model and